

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): An apparatus for determining a distance profile comprising a light transmitter for transmitting pulse light signals in the direction of a monitored space, a light receiver for receiving light signals reflected/remitted from the monitored space and an evaluation unit for determining distance values in dependence on the light transit time between the transmission and reception of the light signals, the light transmitter simultaneously transmitting a plurality of light signals in the direction of a plurality of reflection/remission points disposed in the monitored space and spaced apart from one another, the light receiver including a plurality of photodiodes for receiving the light signals reflected/remitted by the reflection/remission points, and a light deflection device associated with the light transmitter for deflecting the pulse light signals.

Claim 2 (previously presented): An apparatus in accordance with claim 1 wherein the evaluation unit is designed to calculate distance values in dependence on the light transit time between the transmission of the plurality of light signals and the reception of the light signals by n photodiodes, with each distance value being associated with a photodiode.

Claim 3 (previously presented): An apparatus in accordance with claim 1 wherein the plurality of transmitted light signals are components of a fan-shaped light bundle.

Claim 4 (previously presented): An apparatus in accordance with claim 3 wherein the fan-shaped light bundle extends in one plane.

Claim 5 (previously presented): An apparatus in accordance with claim 1 wherein the light transmitter projects a straight line of light into the monitored space.

Claim 6 (previously presented): An apparatus in accordance with claim 1 wherein the light transmitter comprises a laser diode.

Claim 7 (previously presented): An apparatus in accordance with claim 1 wherein the light receiver comprises a row of photodiodes.

Claim 8 (canceled)

Claim 9 (previously presented): An apparatus in accordance with claim 1 wherein the light deflection is designed for the deflection of a fan-shaped light bundle in a direction perpendicular to a plane in which the fan-shaped light bundle extends.

Claim 10 (previously presented): An apparatus in accordance with claim 9 wherein the light deflection device is designed for the periodic deflection of the fan-shaped light bundle.

Claim 11 (previously presented): An apparatus in accordance with claim 1 wherein the light receiver comprises a two-dimensional photodiode array.

Claim 12 (new): An apparatus for determining a distance profile of a monitored space comprising a light transmitter for transmitting pulses of a plurality of light beams in the direction of the monitored space, a light receiver for receiving light beams reflected/remitted from the monitored space and an evaluation unit for determining distance values in dependence on the light transit time between the transmission and reception of the light beams, the light transmitter simultaneously transmitting the plurality of light beams in the direction of a plurality of reflection/remission points disposed in the monitored space and spaced apart from one another, the light receiver including a plurality of photodiodes, each photodiode being associated with one of the transmitted light beams for receiving the light beams reflected/remitted by the reflection/remission points, and a light deflection device associated with the light transmitter for deflecting the pulsed light beams for monitoring the space in a relatively short time.